

Study examines concussion rates among youth, high school, and college football

By ACSH Staff — May 4, 2015



Football is an extremely popular sport in the United States. The number

of boys playing football in the US is greater than the combined number of boys playing the second and third most popular sports, according to the National Federation of State High School Association (NFHS). Approximately 3 million youth athletes play football, and 1.1 million high school athletes and 100,000 college athletes play tackle football each year. And as we've [reported before](#) ^[1], the US has a dangerously relaxed attitude toward concussions.

A [recent study](#) ^[2] published in *JAMA Pediatrics* described the incidence of concussion in athletes participating in youth, high school, and college football, after a report by the Institute of Medicine called for comprehensive nationwide concussion incidence data for athletes aged 5 to 23 years. The study authors, led by Thomas P. Dompier, Ph.D., used data collected as part of three large injury surveillance systems: the Youth Football Surveillance System which provided 4,092 athlete-seasons (one player participating in one season); the National Athletic Treatment, Injury and Outcomes Network which provided 117,957 athlete-seasons; and the National Collegiate Athletic Association Injury Surveillance Program which provided 4,305 athlete-seasons. Data were collected from the 2012 and 2013 football seasons.

The authors found that during the 2012 and 2013 seasons, there were almost 1,200 concussions reported. Of the concussions reported:

- 11.8 percent (141 cases) were in youth athletes
- 66.4 percent (795 cases) were in high school athletes
- 21.9 percent (262 cases) were in college athletes

In youth football, most concussions occurred during games (53.9 percent), while high school and college level football, most concussions occurred during practice (57.7 percent and 57.6 percent, respectively). The one-season concussion risk was 3.5 percent for youth football, 9.9 percent for high school, and 5.5 percent for college.

The authors conclude, Football practices were a major source of concussion at all 3 levels of competition. Concussions during practice might be mitigated and should prompt an evaluation of

technique and head impact exposure. Although it is more difficult to change the intensity or conditions of a game, many strategies can be used during practice to limit play-to-player contact and other potentially injurious behaviors.

ACSH's Dr. Gil Ross had this comment: We have expressed our concerns about the consequences of head trauma among young people involved in contact/collision sports and the inadequate official response to this serious problem [several times](#) [1]. It's only within the past few years that the long-term consequences of such trauma have been better characterized. We recently covered a [rapid test](#) [3] for detecting subtle signs of concussion in athletes. More attention must be paid to this problem to avoid chronic cognitive impairment decades hence. Better diagnosis, lower thresholds for removal from competition, and better protective equipment are all needed.

COPYRIGHT © 1978-2016 BY THE AMERICAN COUNCIL ON SCIENCE AND HEALTH

Source URL: <https://www.acsh.org/news/2015/05/04/study-examines-concussion-rates-among-youth-high-school-and-college-football>

Links

[1] <http://acsh.org/2014/11/colleges-incompetent-handling-concussions/>

[2] <http://archpedi.jamanetwork.com/article.aspx?articleid=2281575>

[3] <http://acsh.org/2015/04/easy-to-administer-vision-test-may-help-diagnose-concussions-quickly/>